

## Spontaneous Closure of Acute Traumatic Renal Arteriovenous Fistulas

Acute traumatic arteriovenous fistulas of the kidney are a common injury resulting either from blunt trauma or penetrating renal wounds. Selective renal angiography is employed for the precise anatomic demonstration of these lesions early in the care of the patient.

Angiographic documentation of the spontaneous closure of acute traumatic renal arteriovenous fistulas was obtained in five patients who were managed conservatively and reexamined angiographically one to eight months following injury. This recently acquired understanding of the natural history of the lesion tends to negate the accepted surgical concept of early aggressive action designed to obliterate such lesions before the onset of significant secondary cardiovascular complications. At present it would appear that surgical intervention can safely be held in abeyance to permit a period of clinical observation in many instances.

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## Renal Vein Thrombosis

Sudden, complete occlusion of the renal vein usually produces the classical picture of flank pain, fever, hematuria and proteinuria. Excretory urography reveals an enlarged kidney with absence of function, or delayed opacification of a compressed, stretched pelvo-calyceal system and sometimes ureteral notching by collateral veins. Less abrupt or incomplete occlusion produces less severe clinical and radiographic findings. In infants, dehydration is the usual cause of thrombosis; in adults, tumor, ascending thrombophlebitis, trauma and nephritis are frequent precursors. Differentiation from nephrosis can be difficult and important. Renal arteriography shows stretched interlobar arteries, a prolonged nephrogram, and dense, bulging pyramids. Cavography and renal venogra-

phy demonstrate the site and extent of obstruction, but are not without the hazard of dislodgement of thrombi.

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## Adrenal Venography

Adrenal venography is a useful supplementary technique for the demonstration and evaluation of adrenal tumors. Selective catheterization of the veins follows percutaneous insertion into the right femoral vein, and permits sampling of blood for hormonal assay as well as angiography. The right adrenal vein is approached directly from the inferior vena cava, the left by way of the left renal vein. Avascular tumors as small as 1 cm in diameter can be detected with this procedure. The complication of thrombosis and adrenal necrosis can be avoided by careful manual injection under fluoroscopic control.

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## The Roentgenologic Diagnosis Of Lactase Deficiency

Deficiency of the intestinal enzyme lactase is now believed to be the most common abnormality of the small bowel in man. It occurs in 5 to 10 percent of the white population and in more than 70 percent of non-whites. The symptoms of the disease are produced by the osmotic effect of the undigested lactose which draws water into the bowel lumen. Gas and lactic acid are also produced by bacterial action of the sugar. This excess fluid and gas causes cramps and diarrhea.

The abnormality can be diagnosed by an insufficient blood glucose rise after an oral lactose tolerance test. Recently roentgen screening methods have been described for the detection of this en-